

CHESTERTON (CAMBS.)  
RURAL DISTRICT COUNCIL

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REPORT

*For the Year 1904*

BY

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Cambridge

J. PALMER, ALEXANDRA STREET

1905



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# REPORT.

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I beg leave to communicate to the Chesterton Rural District Council my Annual Report for the year 1904 on “the conditions affecting health in the District, and . . . the means for improving those conditions,” and in addressing myself to this task I have to point out to the Council that by the “Memorandum as to Annual Reports of Medical Officers of Health,” issued by the Local Government Board, October, 1904, I am directed to discuss prescribed subjects in definite order, and give information which may seem superfluous to the Council. The following extract from the Memorandum will make clear the intention of the Local Government Board:—

“As subjects concerning which the Board desire to obtain, through Annual Reports of the Medical Officer of Health, not only definite general information, but record also of particular changes of condition that may have occurred incidentally or by action of the local authority, the following deserve to be especially borne in mind:—

“Physical features and general character of the District.

“House accommodation, especially for the working classes: its adequacy and fitness for habitation. Sufficiency of open spaces about houses, and cleanliness of surroundings. Supervision over erection of new houses.

“Sewerage and drainage: its sufficiency in all parts of the District. Condition of sewers and house drains. Method or methods of disposal of sewage. Localities where improvements are needed.

“Excrement disposal: system in vogue; defects, if any.

“Removal and disposal of house-refuse—whether by public scavenger or occupiers: frequency and method.

“Water-supply of the District or its several parts: its source (from public service or otherwise), nature (river water, well water, upland water, etc.), sufficiency, wholesomeness, and freedom (by special treatment or otherwise) from risks of pollution.



“Places over which the Council have supervision, *e.g.*, lodging-houses, slaughter-houses, bake-houses, dairies, cowsheds, and milkshops, factories and workshops, and offensive trades.

“Nuisances: proceedings for their abatement—any remaining unabated.

“Methods of dealing with infectious diseases: notification; isolation hospital accommodation and its sufficiency; disinfection.

“With regard to such points it should be remembered that these reports are for the information of the Board and of the County Council as well as of the Council of the District, and that a statement of the local circumstances and a history of local sanitary questions, which may seem superfluous for the latter, may often be needed by the former bodies.”

### VITAL STATISTICS.

Vital Statistics.  
Population.

It would appear from the Census of 1901 that there had been during the intercensal period an increase in the population in the Fulbourn sub-district and a decrease in the population in the Willingham and Shelford sub-districts respectively; but as these alterations were probably due to chanceful circumstances of migration, I have no gauge upon which I can estimate the population to the middle of the year. I therefore use the enumerated population at the Census in making the calculations of Vital Statistics, which are as follows:

Deaths and  
Death-rate.

The total number of deaths registered is 342. The deaths in public institutions outside the district of persons belonging thereto are respectively 17 in the Workhouse and 12 in Addenbrooke's Hospital, which must be added, while the deaths in public institutions within the district of persons not belonging thereto are respectively 56 in the County Asylum at Fulbourn, which must be subtracted. The corrected number is 315\* (159 males and 156 females), equal to a death-rate from all diseases of 13·3 per thousand living per annum. The mean rate of the previous ten years is 13·8. The death-rate in England and Wales for the year 1904 is given as 16·2 in the Summary of the Registrar General, contained in the appendix to his Report for the last quarter of the year.

\* This number includes one death in the Fulbourn sub-district, one death in the Willingham sub-district, and two deaths in the Shelford sub-district of persons not belonging to the district, but as they did not die in a public institution in the district they have to be, by direction of the Local Government Board, included in the total number of deaths. For a like reason one death belonging to the Shelford sub-district, which occurred outside the district, is not included. If the above corrections were made the death-rate would be 13·1.



There have been 6 deaths in the group of epidemic diseases, viz.: from Measles 1, Diphtheria 1, Diarrhoea 4. The death-rate from these diseases is 0·25 per thousand. The mean rate for the previous ten years is 0·78.

Epidemic  
Death-rate.

There have also occurred 3 deaths due to Influenza.

Influenza.

The number of births registered is 505 (250 males and 255 females), equal to a birth-rate of 21·3 per thousand per annum, and is the lowest rate recorded since 1892. The mean rate for the previous ten years is 23·6. The birth-rate for England and Wales for the year 1904 is given as 27·9, which is 0·5 per 1000 below the rate in 1903, and lower than the rate in any other year on record.

Births and  
Birth-rate.

The ratio of deaths under one year of age to 1000 registered births is 103. The mean rate for the previous ten years is 96.

Infantile  
Mortality.

After assigning to each of the sub-districts its share of the deaths in the above three public institutions, as per subjoined table, the vital statistics are respectively:—Fulbourn, general death-rate 13·4, epidemic death-rate 0·27, birth-rate 24·1; Willingham, general death-rate 12·1, epidemic death-rate 0·10, birth-rate 20·3; Shelford, general death-rate 14·7, epidemic death-rate 0·42, birth-rate 19·7.

SUB-DISTRICT.	Regis- tered Deaths.	Adden- brooke's Hospital.	Work- house	County Asylum.	Total.	Death Rate.
Fulbourn     ...     ...	92	3	2	1	98	13·4
Willingham     ...     ...	96	4	10	2	112	12·1
Shelford     ...     ...	95	5	5	...	105	14·7
Entire District     ...	283	12	17	3	315	13·3

Comparing the birth-rate of the several sub-districts with the mean rate for the previous ten years, it would appear that the birth-rate of the Fulbourn sub-district is 0·8 per thousand above



the mean, and the rates for the Willingham and Shelford sub-districts respectively 4·6 and 2·4 below it.

Comparing the death-rates in the same way, it would appear that the rate of the Shelford sub-district is 0·5 above the mean; the rate for the Fulbourn sub-district identical with the mean, and the rate of the Willingham sub-district 1·7 below it.

**Diarrhoea.** The number of deaths from Diarrhoea among persons belonging to the district is 4, and the death-rate per thousand living is 0·16.

**Phthisis.** The number of deaths from Phthisis among persons belonging to the district is 18, and the death-rate per thousand living is 0·76.

**Cancer.** The number of deaths from Cancer among persons belonging to the district is 23, and the death-rate per thousand living is 0·97.

The deaths and death-rate from Diarrhoea, Phthisis, and Cancer in the district among persons belonging thereto during the previous ten years are set out in the following table :

	Diarrhoea.		Phthisis.		Cancer.	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate
1894	7	0·29	26	1·10	26	1·10
1895	8	0·34	33	1·40	20	0·84
1896	3	0·12	34	1·44	24	1·01
1897	6	0·25	22	0·93	34	1·44
1898	26	1·10	33	1·39	27	1·14
1899	10	0·42	26	1·10	18	0·76
1900	3	0·12	27	1·14	21	0·88
1901	1	0·04	23	0·97	32	1·35
1902	0	0·00	25	1·05	25	1·05
1903	1	0·04	17	0·71	26	1·09
Annual Average	—	—	—	—	—	—
for years 1894—1903...	6·5	0·27	26·6	1·12	25·3	1·07

## II.—DISEASE INCIDENCE.

**Disease Incidence.**

Disease of an infectious character has been less prevalent during the year than during any year since 1898. The number of cases notified during the year is 72 (three fatal), equal to a case-rate per thousand of the population of 3·04. The number of cases notified each year during the previous ten years is as follows:—54 in 1894, 53 in 1895, 72 in 1896, 74 in 1897, 70 in 1898, 103 in

1899, 99 in 1900, 51 in 1901, 102 in 1902, 101 in 1903, total 779. The mean case-rate is 3·30.

No case of Small Pox has been notified in the district during the year, and only twelve cases (two fatal) have been notified in the district during the previous ten years. Small Pox.

On April 9th I received a communication from the Medical Officer of Health for the Port of London, stating that a man had landed from the S.S. Macedonia from Bombay, on which a case of Smallpox had occurred, and given his destination as Horningsea. The man was visited and kept under observation for the necessary time and he did not develop the disease.

Twenty-nine cases of Scarlet Fever (none fatal) have been notified during the year, equal to a case-rate per thousand of the population of 1·01. Scarlet Fever.

In the Fulbourn sub-district eight cases in seven households have been notified. One sporadic case at Milton was notified on February 17th; the source of infection could not be traced. No further case occurred in this sub-district till May 15th, when one case at Natal Road, Cherryhinton, was notified, and the disease was probably contracted in Cambridge. It is convenient to mention here that two other cases occurred in the above-mentioned road on July 21st, and were probably infected from the previously mentioned case. In this outlying part of the parish another case occurred at Brookfield on October 22nd, and was also with great probability connected with a Cambridge school. The above cases occurred in that part of the parish of Old Cherryhinton which is just on the border of the Borough of Cambridge. Three cases in three households occurred at New Cherryhinton between May 29th and October 31st. They could not be connected one with the other or with any other known cases.

In the Willingham sub-district fourteen cases in eleven households have been notified. Two cases in two households at Cottenham were notified during January. The first case, which was notified on January 23rd, was not a well-marked case. The second case was notified on January 27th, but there appeared to be no connection between this case and the former; the brother of this patient was engaged at a dairy farm, and as soon as this



case was detected he was immediately suspended from service. At Willingham five cases in three households have been notified; the first occurred on April 14th, and the inception of the disease was probably connected with a visit to Cambridge. Three cases in another household were notified on April 18th; there appeared to be no connection between this family and the case previously mentioned, and it was suggested that the disease might have been contracted at a large religious gathering held in the village, but there was no evidence to substantiate this statement. Another case in a different part of the village, notified on July 18th, was unconnected with any known case. No further case occurred in this sub-district till October 24th, when an isolated case at Ramp-ton was notified, and this was by no means a well-marked case, and could not be connected with any known case. At Landbeach two cases in one household were notified on November 9th and 12th respectively. The first case was desquamating when discovered, but notwithstanding this circumstance no other household was attacked. At Impington one case was notified on November 28th; the patient attended St. Luke's School in the Chesterton Urban District, where the disease was present. Two other cases in two different households were notified on December 10th and 17th respectively; the patients were brothers, and the second with little doubt contracted the disease from the first, but whether there was any connection with the previous family assailed could not be ascertained. At Histon one case was notified on December 27th, and was probably connected with the last two cases at Impington, for all three patients were engaged at the same place of business.

In the Shelford sub-district seven cases in six households have been notified. One case in two several households at Newnham Croft were notified on April 21st and December 14th respectively, and one case at Selwyn Terrace was notified on June 27th. All these cases occurred in that part of the parish of Grantchester adjacent to Cambridge, but could not be connected with cases in that Borough. At Stapleford three cases in two households were notified between July 23rd and 27th. As two of the cases occurred at the schoolmaster's house, the school was closed till after the termination of the cases. At Harlton one case at an



isolated household was notified on September 23th, and this was not a well-marked case.

The number of cases of Scarlet Fever notified, and the number of deaths registered in the district during each of the ten years 1894—1903, are set out in the following table:—

	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	Total
Cases ...	21	17	28	23	19	58	44	12	44	58	324
Deaths ...	1	—	2	—	—	—	—	—	—	1	4

Mean case-rate, 1·37; mean mortality-rate, 0·01; ten years deaths per cent. of cases, 1·2.

Seventeen cases (one fatal) of Diphtheria in fourteen households have been notified during the year, equal to a case-rate per thousand of the population of 0·76.

Diphtheria.

In the Fulbourn sub-district three cases in three households have been notified; one case at Milton notified on February 6th could not be satisfactorily accounted for. At Old Cherryhinton one case, notified on October 29th, was that of an adult; the source of infection could not be traced, but there was no doubt as to the nature of the cases, as bacterial examination of a rubbing of the throat showed the presence of the bacillus of Diphtheria. In consequence of a report that a number of school children in this village were suffering from an infective sore throat, the Medical Officer of Health took rubbings of the throats of a number of the infected children indicated by the school-master, with a result that the bacillus of Diphtheria was not found in any of them. At Horningsea one case was notified on December 10th, and a rubbing from the throat gave a negative bacterial result; as the sanitary conditions of the locality were bad, there is a possibility that the case may have been really one of “drain-throat.”

In the Willingham sub-district six cases in five households have been notified. At Cottenham one case, notified on May 13th, was so slight a case, and only lasted three days, that no definite statement can be made with regard to it. Another case in the village was notified on August 18th; there is some evidence to indicate that the disease was incepted at Peterborough. At Waterbeach one case was notified on June 28th, but no definite

facts with regard to this case could be elicited. At Girton one case, notified on November 30th, was removed to Addenbrooke's Hospital, Cambridge, for trachæotomy, and bacterial examination of a rubbing of the throat gave a positive result. It should be remarked that the residence of this patient was an isolated house on the Huntingdon Road, and not in the village proper. At Landbeach two cases in one household were notified on Dec. 7th and 20th respectively; no rubbings were taken for verification of the diagnosis, but as the sanitary condition of the dwelling was bad, it is possible these may have been really cases of "drain throat."

At Histon cases of septic sore throat occurred among the school children, and the same measures were taken as at Cherryhinton with a similar result.

In the Shelford sub-district eight cases in six households have been notified. At Harlton two cases in one household were notified on March 27th and April 5th respectively, and the first case proved fatal. There were no circumstances to account for the inception of the disease. Two other cases in two other households in separate parts of the village were notified on April 20th and May 2nd respectively. Rubbings of the throats of the patients were taken for bacterial examination, with a result that the diphtheric bacillus was found in one of them. Antitoxin injections were given for the protection of the first family assailed, which was very numerous, and no subsequent cases occurred. As a precautionary measure the school was closed for two weeks. At Little Shelford one case, notified on May 21st, was of doubtful character, the illness only lasting four days. There is a history of the patient's immersion in a ditch, and it is possible the case was one of "drain throat." At Stapleford two cases in one household were notified on June 7th; both the patients had returned home ill from Cambridge, where they had been in service at different households in adjacent streets. There is a history of cases of sore throat in the family where one of the two patients was in service, and the other was probably due to a visit to her sister. At Trumpington one case was notified on December 10th; the patient attended a private school in Cambridge, but there was no direct evidence that the disease was incepted in that town. A



rubbing from the throat was, on examination, found to contain the diphtheria bacillus, and subsequently all the members of the family were swabbed, with a result that three of them were found to be harbouring the bacillus.

The number of cases of Diphtheria notified and the number of deaths registered in the district during each of the ten years 1894—1903 are set out in the following table:—

	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	Total
Cases ...	6	6	21	15	15	24	21	17	16	8	149
Deaths ...	1	—	4	2	2	2	1	—	—	1	13

Mean case-rate, 0·63; mean mortality-rate, 0·05; ten years deaths per cent. of cases, 8·7.

Five cases (none fatal) of Typhoid Fever have been notified in the district during the year, equal to a case-rate per thousand of 0·21. Typhoid Fever.

In the Fulbourn sub-district two cases in two households have been notified. At Fulbourn one case notified on January 21st could not be satisfactorily accounted for. At St. John's Ward, Cherryhinton, one case notified on November 4th was of doubtful character.

In the Willingham sub-district two cases in one household at Waterbeach were notified on September 20th and October 4th respectively. There is a history of the first patient drinking river water; the second case was in direct sequence of the first.

In the Shelford sub-district one case at Trumpington was notified on September 5th, and occurred in an area where cases of Typhoid Fever have occurred from time to time, and, moreover, the sanitary conditions of the house were by no means satisfactory.

The number of cases of Typhoid Fever notified and the number of deaths registered during each of the ten years 1894—1903 are set out in the following table:—

	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	Total
Cases ...	7	5	5	7	11	3	5	3	21	5	72
Deaths ...	2	2	—	2	—	—	—	1	1	2	10

Mean case-rate, 0·30; mean mortality-rate, 0·04; ten years deaths per cent. of cases, 13·8.

No case of Continued Fever has been notified during the year, and only two cases have been notified during the previous ten years.

Continued  
Fever.



## Puerperal Fever.

Two cases of Puerperal Fever (both fatal) have been notified during the year, one at Little Shelford and one at Willingham; the latter case was possibly due to bad sanitary surroundings of the house.

The number of cases of Puerperal Fever notified, and the number of deaths registered during each of the ten years 1894—1903 are set out in the following table:—

		1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	Total
Cases	...	—	3	6	7	1	1	—	2	1	4	25
Deaths	...	—	1	3	1	—	—	—	1	—	—	6

## Erysipelas

Nineteen cases (none fatal) of Erysipelas have been notified during the year, equal to a case-rate per thousand of the population of 0·80.

The number of cases notified, and the number of deaths registered during each of the ten years 1894—1903 are set out in the following table:—

		1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	Total
Cases	...	18	22	12	22	24	17	29	16	20	15	195
Deaths	...	3	1	—	—	3	—	—	1	—	—	8

Mean case-rate, 0·82; mean mortality-rate, 0·03; ten years deaths per cent. of cases, 4·1.

## Other notifiable Diseases.

There have been no cases of Cholera, Typhus Fever, Relapsing Fever, or Plague notified.

Whooping Cough.  
Mumps.  
Measles.

Of the other epidemic but non-notifiable diseases, Whooping Cough prevailed at Six-Mile-Bottom during March and April, and at Haslingfield during December; Mumps prevailed at Teversham during April; Measles prevailed at Trumpington during October and November, at Girton and Oakington during November, and at Cherryhinton during December. In each instance the schools were closed for several weeks.

### III.—PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT.

## Physical Features.

The thirty-seven parishes constituting the Chesterton Rural District are grouped pretty evenly round the Urban Districts of Cambridge and Chesterton. Those on the E.S.E. side of the Rhee and Cam are more closely grouped than those on the W.N.W.

side, and are healthily situated on the Chalk at a somewhat higher elevation than the latter, with the exception of Harlton and Grantchester, which are situated on Chalk outliers; those on the W.N.W. side rest on the Gault. Cottenham on the N. is situated partly on the Gravel and Greensand, and Oakington partly on Kimeridge and Greensand. All along the Cam valley springs arise from between the base of the lower Chalk and the Gault, affording with the general water bearing stratum an abundant and excellent supply of water, where not polluted by local circumstances. The water on the W.N.W. side may be obtained by piercing through the Gault into the Greensand, or by utilising the patches of Gravels of various origins which are dotted about the district. These unfortunately are too liable to pollution by the local circumstances, with certain exceptions, to afford a safe supply. In certain of the parishes to the N. there are extensive Fen lands.

The chief industries are Agriculture, Fruit-growing, and Preserve manufacture, the two latter giving employment to a number of workers throughout the year. Another industry, viz., manufacture of cement from the chalk marl, is extending along the Cam valley in the south to villages in the north of this district.

#### IV.—HOUSE ACCOMMODATION.

The house accommodation, which used to be unsatisfactory when I first had experience of the district, is gradually improving, and is with some exceptions adequate for the requirements of the district. In some of the larger villages there are a few groups of dwellings with insufficient garden and yard spaces, while in others the dwellings are more healthily situated.

House Accom-  
modation

With regard to supervision over the erection of new houses in the district, building by-laws have been in operation for several years at Cherryhinton, Grantchester, Trumpington, and Fen Ditton. With regard to the other villages, although there is no official supervision, a water certificate as required by Section 6 of the Public Health (Water) Act, 1878, is insisted upon before occupancy in every instance.

During the year twelve houses, which were reported as being unfit for human habitation, have been, on notice from the Inspector, placed in habitable repair. A number of other houses are under



consideration with regard to obtaining closing orders under the Housing of the Working Classes Acts.

Five cases of overcrowding have been reported during the year: two cases at Shelford and one case at Stapleford have been abated on notice from the Inspector of Nuisances; one case at Grantchester was abated after an ejectment order had been obtained; one case at Rampton has not yet been abated.

During the year 129 new houses have been erected in the district, viz. at Cherryhinton 49, Grantchester 25, and Trumpington 7; total 81, in parishes in which by-laws are in force; and at Cottenham 1, Great Shelford 10, Harston 3, Histon 24, Impington 2, Milton 3, Oakington 1, and Waterbeach 4; total 48, outside the by-law area.

## V.—SEWERAGE AND DRAINAGE.

Sewerage and  
Drainage.

At St. John's Ward, Cherryhinton, the house drains are now, with very few exceptions, connected with the sewers; the surface water drains have been overhauled and where necessary relaid, and all slop-water drains which have been found connected to the surface water drains have been disconnected therefrom and connected with the sewers. The drains from three laundries, which formerly discharged into drains having outlets into the water-courses, have been connected to the sewers.

At Newnham Croft, Grantchester, which, as mentioned in my previous reports, was simply a sewage-logged area, good progress has been made in connecting the house drains with the sewers, with a result that very few houses remain to be connected.

With the exception of the above there is very little of what may be properly called sewerage in the district, but many of the surface drains have been converted to sewerage purposes to convey sewage into the ditches and watercourses outside the villages.

The surface water drains at Fulbourn, Milton, and Little Shelford respectively have been repaired.

Complaints having been received as to the state of the ditches at Great Shelford and Landbeach respectively, into which the public drains discharge, the matter is now being considered by the Sanitary Committee.



At Girton, the public ditch, into which the public drains discharge, has been piped for some distance with glazed earthenware pipes in order to carry the outfall further from the houses.

## VI.—EXCREMENT DISPOSAL.

In most of the villages there are still pit privies remaining, but these are being gradually substituted by pail closets or earth closets. In some of the better class houses there are water closets connected with cesspools.

Excrement  
Disposal.

At St. John's Ward, Cherryhinton, and Newnham Croft, Grantchester, there are water closets, many of which are only hand flushed.

The excrement from both pit privies, pail closets, and earth closets is disposed of on garden ground.

## VII.—REMOVAL AND DISPOSAL OF HOUSE REFUSE.

The only parishes where the removal of house refuse is carried out by public scavenger are St. John's Ward, Cherryhinton, and Newnham Croft, Grantchester. In the other villages in the district the refuse is disposed of by the occupiers.

Removal of  
Refuse.

It would be desirable if a scheme of scavengering could be devised for some of the larger villages, especially Cottenham and Willingham, where some of the houses are situate in confined areas, and there being no proper sewer the pail system of closet is largely in vogue, and the contents of the pails are frequently emptied with the house refuse in one corner of the small yards adjoining the houses, and frequently cause a nuisance injurious to health. During the year a large number of these accumulations have been removed in compliance with verbal requests, and thirty on notice from the Inspector of Nuisances.

## VIII.—WATER SUPPLY.

The water supply in the several villages which constitute the district is very unequal, both in quantity and quality, owing to their geological position.

Water Supply.

Those villages situate on the chalk or large gravel patches could get an abundant supply if it were not locally polluted; others again could obtain a supply both abundant and wholesome from the lower greensand; others again have none of these opportunities.

The following villages obtain their water supply from the Cambridge University and Town Waterworks Company, viz. Cherryhinton and Fulbourn (where the pumping stations and reservoir are situated), and Great Shelford, Trumpington, Newnham Croft, Grantchester, Histon and Impington from extensions of the Company's mains.

The scheme of water supply for the village of Longstanton All Saints, mentioned in my previous report, having been approved of by the District Council, a well has been sunk to a depth of fifteen feet from the surface into a large gravel bed, the top portion of the well being 5 ft. 3 in. in diameter, and the bottom six feet being 4 ft. 6 in. in diameter. In order to test the yield the well was pumped dry and kept so for several hours by means of a steam pump; on the cessation of pumping the water rose six feet in twenty minutes and ten feet in one hour. Two-inch iron pipes have been laid through the village, and three pumps have been fixed, viz, one opposite the Black Bull Inn, one opposite Church Cottages, and one opposite the Post Office. The total cost of the completed scheme is £289 2s. 6d.

At Bottisham Locks in the parish of Waterbeach, where the water supply for the several houses was chiefly obtained from the river on account of the nearest public pump being three-quarters of a mile distant, a public supply has been provided during the year, the owners of the property paying two-thirds and the District Council one-third of the cost. A well has been bored to a depth of eighty feet through the subsoil and gault, and then punched a further twenty feet into the greensand. The bore is lined to within six inches of the surface with  $3\frac{3}{4}$ -inch galvanised iron tubes having soldered joints, the top twenty feet being further protected by a 6-inch wrought iron tube. A lead pump with twenty-four feet of  $2\frac{1}{2}$ -inch suction pipe has been fixed, and there is an abundant supply of water, which rises to near the surface.

At Barton the water from the public pump on the Green



having been found to be polluted, an examination was made, when it was discovered that the drain under the pump was defective and the well insufficiently protected. The well has been cleaned out, properly puddled, and domed over with brickwork in cement; the pump has been repaired, and a new gulley dished round with brickwork in cement has been provided.

At Rampton the public well failed in September, and the inhabitants have since been supplied by means of a water-cart. The water supply to this village and Willingham still remains in the same unsatisfactory state as mentioned in my past reports. It might be worth the consideration of the Council whether a supply for these villages could be obtained from Cottenham.

Seventeen samples of water have been analysed by the Public Analyst during the year, with a result that eight samples from six wells were found to be polluted. In one instance a new bored well has been provided, in two others a supply has been obtained from the Cambridge University and Town Waterworks Company's main; in the remaining three instances the sources of pollution have been removed.

Certificates under Section 6 of the Public Health (Water) Act, 1878, have been granted during the year for the occupation of 129 newly erected houses, 115 of which are supplied with water from the Cambridge University and Town Waterworks Company's mains, eight from other public supplies, five from private new bored wells, and one from a private shallow well, the water in which was found on analysis to be unpolluted.

## **IX.—PLACES OVER WHICH THE COUNCIL HAVE SUPERVISION.**

The slaughterhouses, dairies, cowsheds, and milkshops have been periodically inspected during the year, and three slaughterhouses and one cowshed have been structurally improved. Inspections.

The knackeries at Cherryhinton and Willingham respectively have been inspected, and upon the verbal request of the Inspector of Nuisances a slight addition has been made to one of them by the owner. On application the licences have been renewed by the Council,



## X.—FACTORIES AND WORKSHOPS.

Factories and  
Workshops.

The Factory and Workshops Act, 1901, imposes several new and important powers and duties on the District Council, and the Inspector of Nuisances has been specially appointed to carry the provisions of the Statute into effect.

**Factories.**—There are at present recorded three non-textile factories in the district, where more than forty persons are employed, viz.: 1 Jam Factory, 1 Laundry, and 1 Cement Works; these have all been examined with regard to the provisions of escape in case of fire.

**Workshops.**—Five-hundred-and-forty-eight inspections of the workshops in the district have been made during the year, with a result that twenty were found not to be kept in a cleanly state, two were inefficiently ventilated, two were overcrowded, and in fifty-five others nuisances of a minor character were discovered; all the nuisances have been abated either after notice, or on the verbal request of the Inspector of Nuisances.

One reference from H.M. Inspector of Factories in regard to a case of overcrowding in a workshop has been received during the year; this case was dealt with under the Public Health Act, and satisfactorily abated by adding another room to the workshop. A report of the action taken has been sent to H.M. Inspector.

**Bakehouses.**—One new bakehouse has been erected at Great Shelford during the year. On May 1st and September 1st respectively, circular letters explaining the requirements of Sec. 99 of the Act were sent to all the occupiers of the bakehouses in the district, together with a request that the requirements of the Section be carried out in May or September as the case may be. Upon inspection it was found that in May and September respectively nine and six of the occupiers had not complied with the request, whereupon notices were served, and they were complied with. There are forty-eight bakehouses in the district, none of which are underground.

**Homework.**—During the year a list containing the addresses of 175 outworkers residing in this district has been received from the Borough of Cambridge. Two hundred inspections of premises where homework is done have been made during the year, and in twenty instances notices have been served for the abatement of

nuisances and these have been complied with, and in a number of instances nuisances have been abated after verbal request. In no instance has any dwelling house been found to be so unhealthy as to necessitate the District Council prohibiting homework being done therein. In three instances it has been necessary to prevent homework being done in houses where infectious diseases existed.

**Register of Workshops.**—The number of workshops now on the register is 275, and includes 48 bakehouses, 37 smiths, 38 carpenters, 32 bootmakers, 10 basketmakers, 19 wheelwrights, 18 dressmakers, 13 cycle shops, 9 tailors, 9 plumbers, 9 brewers, 8 sadlers, 3 laundries, 2 aerated water makers, and 20 sundries.

## X.—NUISANCES.

A recurring nuisance caused by the foul state of the ditch along Cherryhinton Road has now been satisfactorily abated by connecting to the sewer all the drains which formerly discharged slop water into surface water drains having their outlet into the ditch.

Nuisances.

Nuisances of various kinds, as indicated in the Inspector's table appended to this report, have been dealt with.

## XI.—METHODS OF DEALING WITH INFECTIOUS DISEASES.

The methods of dealing with infectious diseases are by notification followed by inquiry on the part of the Medical Officer of Health or Inspector of Nuisances, or by both, according to the importance of the cases. There is as yet no isolation hospital in the district for other diseases than Small-Pox, but a piece of land containing 12 a. 0 r. 9 p. (more or less), situate in a central part of the district, has been purchased as a site for an isolation hospital. In the absence of such an institution advice is given to the householders as to the best means of isolation of cases in their own homes. The Schools' Authorities are informed of the households in which infectious diseases have appeared, with a request to exclude all the members until they are free from infection. When epidemic influence shows a tendency to spread, the Schools' Authorities are asked to close the schools; and in this regard the

Isolation Hospital, etc.



schools in the following villages have been closed for several weeks: At Trumpington, Girton, Oakington, and Cherryhinton respectively on account of the prevalence of Measles; at Six-Mile-Bottom and Haslingfield respectively on account of the prevalence of Whooping Cough; at Teversham on account of the prevalence of Mumps; at Harlton on account of the prevalence of Diphtheria; and at Stapleford on account of the presence of Scarlet Fever.

In threatened outbreaks of Diphtheria, prophylactic doses of Antitoxin are recommended for the protection of persons known to have been exposed to the chance of infection, and bacterial examinations of rubbings from the throats and nasal passages of all known "contacts" is recommended for the discovery of any unsuspected cases of the disease.

At the conclusion of a case of infectious disease the infected rooms and the articles contained therein are disinfected by aerial disinfectants, but there is no machinery in the district for disinfection by heat or steam.

## **XII.—ADOPTIVE ACTS.**

**Adoptive Acts.** The Infectious Disease (Prevention) Act, 1890, and the Public Health Acts (Amendment) Act, 1890, are not in operation in the district. It is worth the consideration of the Council whether it would not be well to enlarge their administrative powers by the adoption of at least some clauses of these Acts.

All the above remarks, together with the Statistical Tables required by the Local Government Board, and the Inspector's record of work, I respectfully submit for the consideration of the Rural District Council.

BUSHELL ANNINGSON.



TABLE I.

## For the Whole of Chesterton Rural District.

Table showing Vital Statistics for the year 1904 and the antecedent ten years.

YEAR.	Population estimated to middle of each Year.	BIRTHS.		TOTAL DEATHS REGIS- TERED IN THE DISTRICT.				TOTAL DEATHS IN PUBLIC INSTITUTIONS IN THE DISTRICT.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
				UNDER ONE YEAR OF AGE.		AT ALL AGES.						
		Number.	Rate.*	Number.	Rate per 1000 Births registered.	Number.	Rate.*				Number.	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1894.....	23520	588	25.0	62	105	349	14.8	44	40	20	329	13.9
1895.....	23543	599	25.4	63	105	355	15.0	36	32	32	355	15.0
1896.....	23558	579	24.5	64	110	339	14.3	46	44	27	322	13.6
1897.....	23577	509	21.5	52	102	321	13.6	43	39	35	317	13.4
1898.....	23596	559	23.6	71	127	363	15.4	48	39	35	359	15.2
1899.....	23616	525	22.2	61	116	366	15.5	49	48	27	345	14.6
1900....	23635	566	23.9	38	67	358	15.1	62	57	30	331	14.0
1901....	23655	553	23.3	45	81	330	13.9	68	65	34	299	12.6
1902.....	23655	509	21.5	40	78	333	14.0	57	54	35	314	13.2
1903.....	23655	586	24.7	51	87	324	13.6	63	57	28	295	12.4
Averages for years 1894—1903	23601	557	23.6	54	96	343	14.5	51	47	30	326	13.8
1904.....	23655	505	21.3	52	103	342	14.4	59	56	29	315	13.3

\* Rates calculated per 1000 of estimated population.

NOTE.—The deaths included in Column 7 of this table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7, corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term “Non-residents” is meant persons brought into the district on account of sickness or infirmity, and dying in Public Institutions there; and by the term “Residents” is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in Public Institutions elsewhere.

The Public Institutions taken into account for the purposes of this and the following tables are the Union Workhouse, Chesterton; County Asylum, Fulbourn; and Addenbrooke's Hospital, Cambridge.

Area of District in acres (exclusive of area covered by water).....78033.

Total population at all ages .....	23655	} At Census of 1901.
Number of inhabited houses .....	5546	
Average number of persons per house .....	4.2	

TABLE II.  
Chesterton Rural District.

Table showing Estimated Population, Births, Corrected Deaths at all ages and Infant Mortality for the year 1904 and the antecedent ten years.

NAMES OF LOCALITIES.	1 Whole District.				2 Fulbourn.				3 Willingham.				4 Shelford.			
	Population.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
YEAR.	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(d)	(a)	(b)	(c)	(c)
1894	23520	588	329	62	6773	156	88	15	9327	251	151	30	7420	181	90	17
1895	23543	599	355	64	6848	173	99	20	9315	256	135	22	7380	170	121	22
1896	23558	579	322	68	6916	166	89	20	9303	246	124	26	7339	167	109	22
1897	23577	509	317	53	6988	133	99	22	9290	232	123	19	7299	144	95	12
1898	23596	559	359	71	7059	159	124	28	9278	223	118	21	7259	177	117	22
1899	23616	525	345	62	7131	156	86	16	9266	223	134	27	7219	146	125	19
1900	23635	566	331	40	7202	164	102	11	9254	230	126	17	7179	172	103	12
1901	23655	553	299	46	7274	177	93	17	9242	227	125	18	7139	149	81	11
1902	23655	509	314	42	7274	169	86	9	9242	194	128	20	7139	146	100	13
1903	23655	586	295	52	7274	194	83	25	9242	233	120	17	7139	159	92	10
Averages of years 1894—1903	23601	557	326	56	7074	165	95	18	9276	231	128	22	7251	161	103	16
1904	23655	505	315	52	7274	176	98	23	9242	188	112	12	7139	141	105	17

NOTES.—(a) The separate localities adopted for this table are areas of which the populations are obtainable from the census returns. Block 1 is used for the whole district, and blocks 2, 3, and 4 for the several localities.  
(b) Deaths of residents occurring in public institutions beyond the district are included in sub-columns c of this table, and those of non-residents registered in public institutions in the district excluded. (See note on Table I. as to meaning of terms “residents” and “non-residents.”)

TABLE III.  
Chesterton Rural District.  
Cases of Infectious Disease notified during the Year 1904.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.		
	At all Ages.	At Ages—Years.						1 Fulbourn.	2 Willingham.	3 Shelford.
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.			
Small Pox...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...
Diphtheria ...	17	...	1	9	4	3	...	3	6	8
Membranous Croup	...	...	...	...	...	...	...	...	...	...
Erysipelas...	19	1	...	1	2	13	2	8	9	2
Scarlet Fever ...	29	...	3	17	5	4	...	8	14	7
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	5	...	1	1	...	3	...	2	2	1
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...
Continued Fever ...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	2	...	...	...	...	2	...	...	1	1
Plague ...	...	...	...	...	...	...	...	...	...	...
Totals ...	72	1	5	28	11	25	2	21	32	19

NOTE.—The localities adopted for this table are the same as those in Tables II. and IV. There is no Isolation Hospital for cases of any infectious diseases other than Small Pox.



TABLE IV.

## Chesterton Rural District.

Causes of Death at several age periods during the Year 1904

CAUSES OF DEATH.	DEATHS IN OR BELONGING TO WHOLE DISTRICT AT SUBJOINED AGES.							DEATH IN OR BELONGING TO LOCALITIES (AT ALL AGES).			TOTAL DEATHS IN PUBLIC INSTITUTIONS IN DISTRICT.
	All ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	Fulbourn.	Willingham	Shelford.	
1	2	3	4	5	6	7	8	9	10	11	12
Small Pox .....	...	...	...	...	...	...	...	...	...	...	...
Measles.....	1	...	1	...	...	...	...	...	...	1	...
Scarlet Fever .....	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough .....	...	...	...	...	..	...	...	...	...	...	...
Diphtheria and Mem- branous Croup .....	1	...	...	1	...	...	...	...	...	1	...
Croup .....	1	1	...	..	..	...	...	1	...	...	...
Fever { Typhus .....	...	...	...	...	...	...	...	...	...	...	...
{ Enteric .....	...	...	...	...	...	...	...	...	...	...	...
{ Other continued .....	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza.....	3	...	...	...	...	1	2	1	...	2	3
Cholera .....	...	...	...	...	...	...	...	...	...	...	...
Plague .....	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa .....	4	2	1	...	...	...	1	2	1	1	...
(See notes opposite)											
Enteritis .....	4	4	...	...	...	...	...	1	3	...	...
(See notes opposite)											
Puerperal Fever .....	2	...	...	...	...	2	...	...	1	1	...
Erysipelas .....	...	...	...	...	...	...	...	...	...	...	...
Other septic diseases ...	2	...	...	1	1	...	...	...	1	1	...
Phthisis .....	18	...	...	2	3	11	2	5	7	6	10
Other tubercular diseases	7	...	2	1	2	2	...	5	2	...	...
Cancer, malignant dis- ease.....	23	...	...	...	...	14	9	12	6	5	1
Bronchitis.....	16	2	1	...	1	2	10	...	9	7	1
Pneumonia .....	22	6	3	...	3	7	3	8	9	5	2
Pleurisy .....	...	...	...	...	...	...	...	...	...	...	...
Other diseases of Respi- ratory Organs.....	...	...	...	...	...	...	...	...	...	...	..
Alcoholism. Cirrhosis of liver .....	2	...	...	...	..	1	1	...	...	2	...
Venereal diseases.....	...	...	...	...	...	...	...	...	...	...	...
Premature birth .....	12	12	...	...	...	...	...	8	1	3	...
Diseases and accidents of Parturition.....	...	...	...	...	...	...	...	...	...	...	...
Heart diseases .....	40	1	...	...	...	17	22	13	8	19	4
Accidents .....	6	...	...	...	1	5	...	1	1	4	1
Suicides .....	2	...	...	...	...	2	...	...	1	1	...
Not certified.....	9	2	...	...	...	6	1	2	...	7	...
All other causes .....	140	22	4	...	1	31	82	39	62	39	37
All causes.....	315*	52	12	5	12	101	133	98	112	105	59

\* See footnote on page 4.

See Notes on next page.

## NOTES OF TABLE IV.

- (a) In this Table all deaths of "Residents" occurring in public institutions, whether within or without the district, are included with the other deaths in the columns for the several age groups (columns 2—8). They are also in columns 9—11, included among the deaths in their respective "Localities" according to the previous addresses of the deceased as given by the Registrars, and deaths of "Non-residents" occurring in public institutions in the district are excluded.
- (b) *See* notes on Table I. as to the meaning of "Residents" and "Non-residents," and as to the Public Institutions taken into account for the purposes of these tables.
- (c) All deaths occurring in public institutions situated within the district, whether of "Residents" or of "Non-residents," are, in addition to being dealt with as in note (a), entered in the last column of this Table.
- (d) Under the heading of "Diarrhœa" are included deaths certified as from diarrhœa alone; or in combination with some other cause of ill-defined nature; and also deaths as certified from—
- Epidemic enteritis;
  - Zymotic enteritis;
  - Epidemic diarrhœa. Summer diarrhœa;
  - Dysentery and dysenteric diarrhœa;
  - Choleraic diarrhœa, cholera, cholera nostras (in the absence of Asiatic cholera).

Under the heading of "Enteritis" are included those certified as from Gastro-enteritis, Muco-enteritis, and Gastric catarrh, unless from information obtained by enquiry from the certifying practitioner or otherwise, the Medical Officer of Health has reason for including such deaths, especially those of infants, under the specific term "Diarrhœa." Deaths from diarrhœa secondary to some other well-defined disease are included under the latter.

Under the heading of "Puerperal Fever" and "Cancer," are included all registered deaths from causes comprised within these general terms.

# REPORT OF THE INSPECTOR OF NUISANCES FROM JANUARY 1 TO DECEMBER 31, 1904.

Complaints received ...	...	...	...	...	87
Entries in journal ...	...	...	...	...	560
Notices served ...	...	...	...	...	120
Slaughter-houses inspected	...	...	...	...	26
Bake-houses inspected	...	...	...	...	48
Filthy Houses cleaned	...	...	...	...	2
Houses placed in habitable repair	...	...	...	...	12
Houses disinfected ...	...	...	...	...	40
Over-crowding cases dealt with	...	...	...	...	5
Certificates granted under Section 6 of the Public Health (Water) Act, 1878	...	...	...	...	129
Polluted wells closed	...	...	...	...	2
New Houses connected with the Cambridge University and Town Water Company's main	...	...	...	...	115
Samples of water taken for analysis	...	...	...	...	17
New public pumps provided	...	...	...	...	4
Public pumps repaired	...	...	...	...	4
Wells cleansed or repaired	...	...	...	...	6
Water-closets, earth or pail-closets, or improved privies con- structed	...	...	...	...	26
Ditto, repaired or cleansed	...	...	...	...	13
Slop-water drains disconnected from road drains	...	...	...	...	30
House drains, new laid	...	...	...	...	14
Ditto, repaired or trapped	...	...	...	...	15
Ditto, cleansed	...	...	...	...	17
Foul ditches cleansed	...	...	...	...	12
Foul accumulations removed	...	...	...	...	30
Animals improperly kept removed	...	...	...	...	11
Defects in sanitary arrangements at schools remedied	...	...	...	...	4
Contraventions of the Factory and Workshops Act	...	...	...	...	97

F. BUNNETT,

*Inspector of Nuisances,*





